SERVICE MANUAL 6170

marantz

model 6170

Turntable

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If, for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

ORDERING PARTS

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order forms which are available from our National Parts Depot located at the following address:

SUPERSCOPE NATIONAL PARTS DEPARTMENT
20525 Nordhoff Street
Chatsworth, California 91311
Phone: 1-800-423-5108
1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
4. Model number for which part is required (indicate MARANTZ).
5. Account number (for account customers only).

Direct consumers will be provided with the current retail price quotation on available parts in order to advise them of the cost of the parts and shipping.

OVERSEAS PARTS ORDERING

Parts may also be ordered from the following overseas addresses:

CANADA

Superscope Canada, Ltd.
3710 Nashua Drive
Mississauga
Ontario, Canada L4V1M5

AUSTRALIA

Superscope (Australasia) Pty., Ltd.
32 Cross Street (P.O. Box 604)
Brookvale 2100 N.S.W.
Australia

JAPAN

Marantz Japan, Inc.
3622 Kamitsuruma
Sagamihara Shi
Kanagawa, Japan

EUROPE

Superscope Europe, S.A.
Avenue Leopold III, 2
7120 Peronnes-Lez-Binche
Belgium

Marantz France
Rue Louis Armand 9
92600 Asnieres
Hauts-de-Seine
France

Marantz Audio U.K. Ltd.
London Road, 203
Staines
Middlesex
England

Superscope GmbH
Max-Planck-Strasse 22
D-6072 Dreieich 1
West Germany

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.

MARANTZ MODEL 6170 TURNTABLE

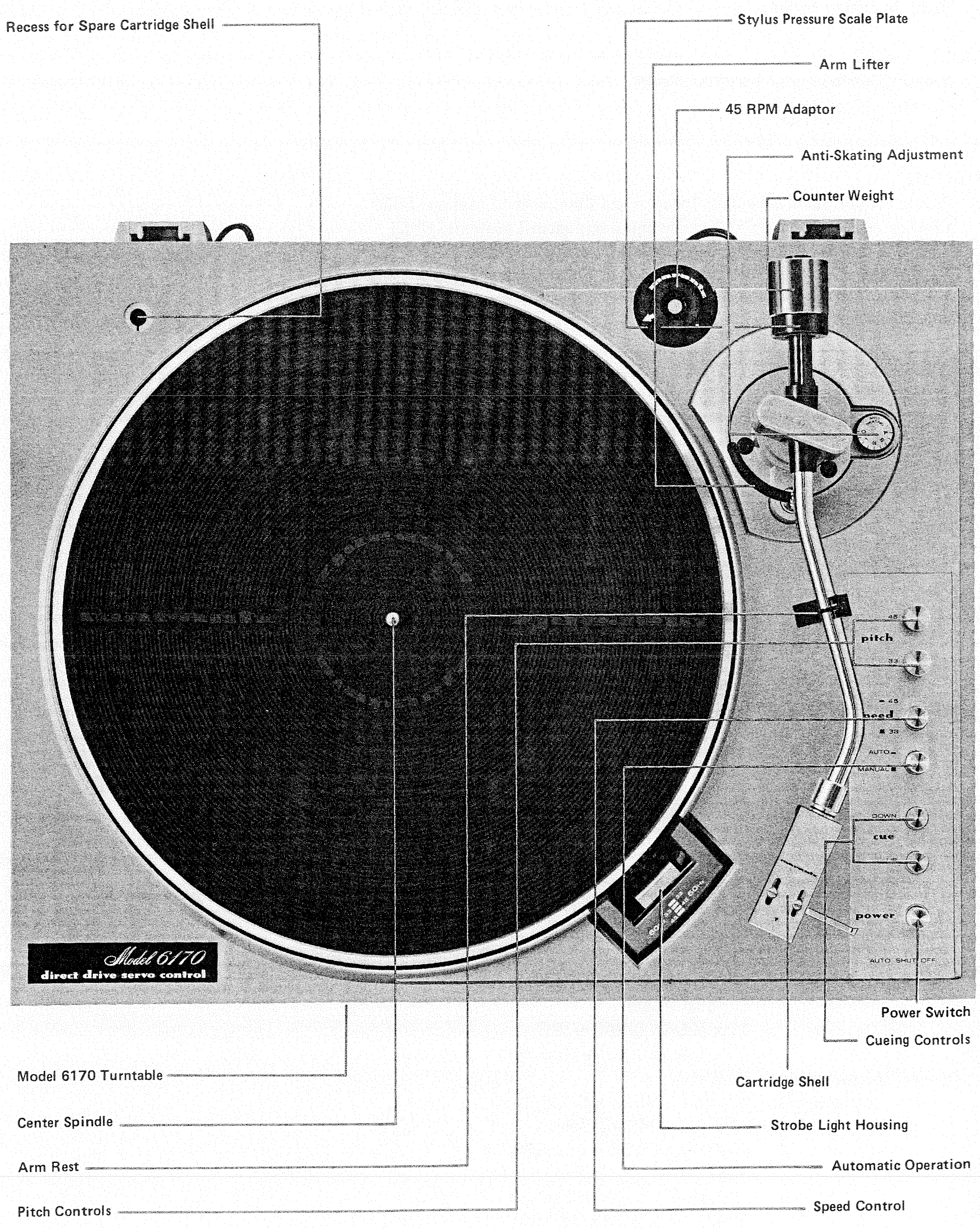

Recess for Spare Cartridge Shell
Stylus Pressure Scale Plate
Arm Lifter
45 RPM Adaptor
Anti-Skating Adjustment
Counter Weight
Model 6170
direct drive servo control
45
pitch
33
45
speed
33
AUTO
MANUAL
DOWN
cue
UP
power
AUTO SHUT OFF
Power Switch
Cueing Controls
Cartridge Shell
Strobe Light Housing
Automatic Operation
Speed Control
Model 6170 Turntable
Center Spindle
Arm Rest
Pitch Controls

TABLE OF CONTENTS

Section Title Page

1. PERFORMANCE SPECIFICATIONS ········ 3

2. ADJUSTMENTS ········ 4
   - 2-1. Automatic Shut-Off Check and Adjustments ········ 4
   - 2-2. Tone Arm Adjustments ········ 4

3. SERVICE NOTES ········ 6
   - 3-1. Voltage Conversion for European Model ········ 6
   - 3-2. Cartridge Wire Color Code ········ 6
   - 3-3. Replacement Parts/Technical Assistance ········ 6

4. DIAGRAMS ········ 7
   - 4-1. Power Supply Board Schematic Diagram and Component Location - P800 ········ 7
   - 4-2. Connector Board Schematic Diagram and Component Locations - PV03 ········ 8
   - 4-3. Auto/Manual Board Schematic Diagram and Component Locations - PV04 ········ 8
   - 4-4. Lead Swtich Board Schematic Diagram and Component Locations - PV01 ········ 9
   - 4-5. Lead Switch Board Schematic Diagram and Component Locations - PV02 ········ 9
   - 4-6. Schematic Diagram ········ 10

5. EXPLODED VIEWS AND PARTS LIST ········ 12
   - 5-1. [C01-99] Case and General Parts ········ 12, 13
   - 5-2. [P01-99] Turn Table and Motor ········ 14
   - 5-3. [P02-99] Tone Arm ········ 14
   - 5-4. [P03-99] Parts Assembled on The Chassis ········ 15, 16
   - 5-5. [H01-99] Packing Materials ········ 17, 18

1. PERFORMANCE SPECIFICATIONS

GENERAL

Speeds:	33-1/3, 45 rpm
Speed Control (PITCH) range:	6% (±3%)
Drive System:	Direct Drive
Drive Motor:	DC Servo-Controlled
Platter Diameter:	12-1/8 in. (31.0 cm)
Rumble (DIN):	-65 dB
Wow and Flutter:	0.03% (WRMS)
Power Requirements:	120 V AC, 60 Hz (USA and Canada Model) 110/120/220/240 V AC 50/60 Hz (European Model)
Power Consumption:	12 Watts
Dimensions:	17-3/4 in. Wide x 5-1/8 in. High x 14-1/8 in. Deep. (450 mm x 130 mm x 360 mm)
Weight:	15.6 lbs (7.3 kg) Unpacked 30 lbs. (9.3 kg) Packed for Shipment

TONE ARM

Type:	Static-Balanced S Shaped Pipe Arm
Length:	8-7/16 in. (215 mm)
Overhang:	14 mm
Tracking Force Adjustment Range:	0–3.0 g
Anti-Skating Force Compensation Range:	0–4.0 g

2. ADJUSTMENTS

2-1. AUTOMATIC SHUT-OFF CHECK AND ADJUSTMENTS

2-1-1. AUTOMATIC SHUT-OFF CHECK

In the automatic mode of operation, the solenoid L002 is in the activated state during playback. The end of playback is detected by the reed switch SV04 for 33 RPM or by the reed switch SV03 for 45 RPM. The switch grounds the positive end of L002 through RV02 temporarily. This returns the solenoid to the non-activated state, wich allows the arm lifter to move up.

2.1.2. AUTOMATIC SHUT-OFF ADJUSTMENT

Loosen the lead switch assembly lock screw 016N before making the automatic shut-off adjustment.

Adjust the screw 019N so that the AUTO mechanism may be operated at 45 RPM (for EP record). Change the speed from 45 RPM to 33 RPM after adjustment of 45 RPM (for EP record) has been completed. If the AUTO mechanism is incorrectly operated at 33 RPM (for LP record), adjust the screw 018N. When the speed set to "33" is in normal operation at 33 RPM (for LP record), and when the speed set to "45" is in normal operation at 45 RPM (for EP record), tighten the screw (021F x 2) securely.

2-2. TONE ARM ADJUSTMENTS

After a cartridge is mounted, several adjustments must be made to optimize turntable performance. First, the stylus overhang must be adjusted; then the tone arm balance, tracking force, and anti-skating force.

2-2-1. STYLUS OVERHANG

The Model 6170 Turntable is designed to operate with the least distortion when the tip of the stylus is at a particular distance from the tone arm pivot. For this reason, the cartridge shell is slotted, allowing the cartridge with its mounting screws to be slid toward or away from the pivot point. This, in effect, changes the radius of the arc described by the stylus. Supplied in the accessory kit is a 45 RPM spindle adaptor. The adaptor has been specially marked with an arrow and a cross to aid you in setting the proper stylus overhang. Proceed as follows:

A. With the turntable stopped, place the 45 RPM adaptor on the center spindle with the arrow pointing to the rear of the turntable.
B. Remove the arm from its arm rest and remove the protective cover (if any) from the stylus.
C. Place the stylus tip over the 45 RPM adaptor and adjust the cartridge so that the stylus tip will be perfectly centered in the cross.
D. Make sure that the cartridge is installed straight. The sides of the cartridge must remain parallel to the sides of the shell.
E. Snug up the mounting screws.

2-2-2. VERTICAL TONE ARM BALANCE

The adjustable counterweight at the end of the tone arm establishes tone arm balance and stylus tracking force. Since no two types of cartridges weigh the same, the balance and tracking force must be adjusted for each cartridge being used.

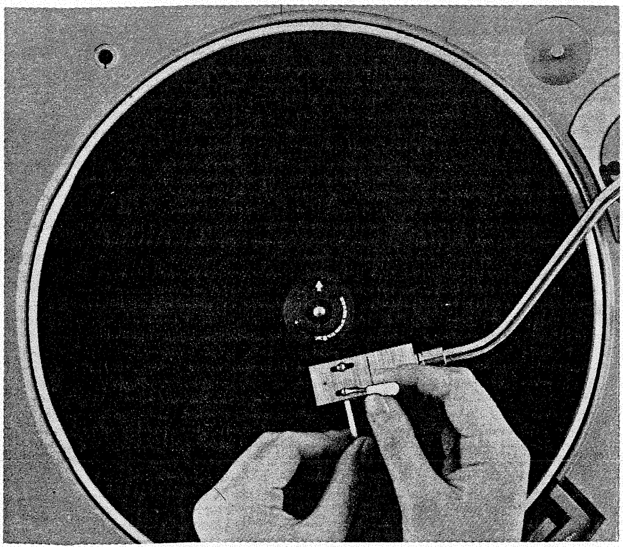


Figure 1. Stylus Overhang Adjustment

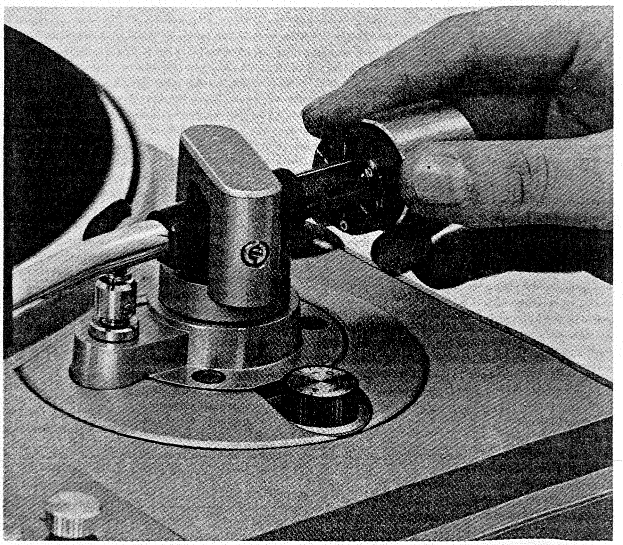


Figure 2. Tone Arm Balance Adjustment

First, to establish a point of reference, the entire arm assembly (with cartridge installed) must be balanced. If the cartridge has a removable stylus protector, remove it, (as you would to play a record). Release the tone arm from the arm rest.

To adjust the tone arm balance, set the anti-skate dial at 0.

To balance the arm, adjust the position of the counterweight by rotating it. A numbered stylus pressure scale plate is located immediately in front of the counterweight. Rotating the scale plate alone does not change the counterweight's position. To change the balance, grasp and turn the counterweight itself.

Adjust the weight so that the arm is level (parallel to the turntable surface) with the cartridge suspended in mid air.

Then, without moving the counterweight, set the stylus pressure scale plate to indicate zero. This establishes a reference point for setting the tracking force.

2-2-3. TRACKING FORCE

For the recommended tracking force, refer to the instructions that accompany the cartridge.

Tracking force, the downward pressure of the stylus against the record, is produced by simply setting the arm off balance in the appropriate direction. That is, the counterweight is screwed inward (toward the arm pivot) until the desired downward pressure is achieved.

The stylus pressure scale plate is in frictional contact with the counterweight, so that they rotate together when the counterweight is turned. The numbers on the scale plate correspond to the tracking force measured in grams. So, if the desired tracking force is two grams, turn the counterweight inward until the stylus pressure scale plate registers 2.

2-2-4. ANTI-SKATING ADJUSTMENT

The anti-skating mechanism is provided to counteract the natural tendency for the arm to "skate" toward the center of the record as it is being played. The more tracking force used, the more anti-skating force required.

The anti-skating force is adjustable with continuously graduations that correspond with the tracking force markings on the stylus pressure scale plate. Set the anti-skating force to the same value as the tracking force.

Place the arm in the arm rest, and secure it with the safety lock.

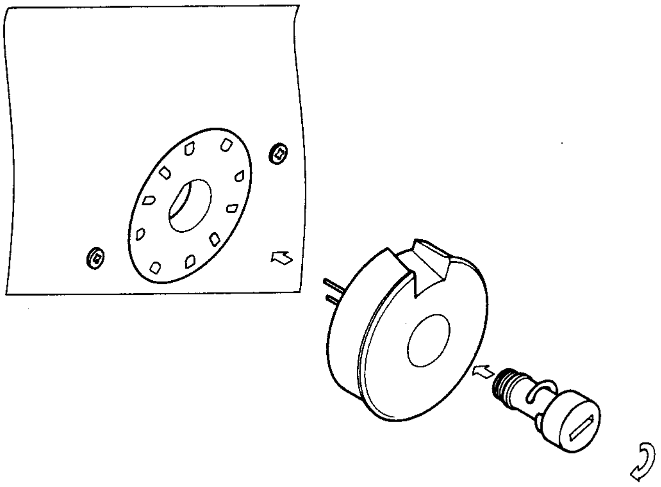
3. SERVICE NOTES

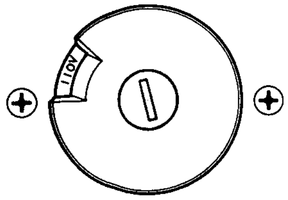
3-1. VOLTAGE CONVERSION FOR EUROPEAN MODEL

The European version of the Model 6150 is equipped with a universal power transformer that may be adjusted to operate at 110 V, 120 V, 220 V, or 240 V AC at 50 to 60 Hz.

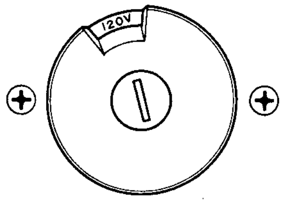
To convert the unit to a different power source voltage, reposition conversion plug as shown in the illustration below.

CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

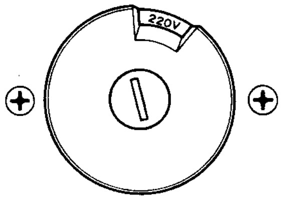




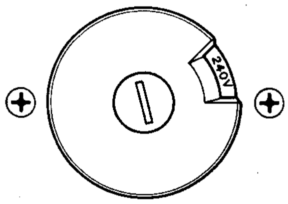
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

3-2. CARTRIDGE WIRE COLOR CODE

Before a cartridge is screwed into the shell, the small clips at the ends of the wires in the tone arm cartridge shell should be pushed onto their corresponding cartridge connection pins.

TONE ARM CARTRIDGES SHELL – WIRE COLOR CODE –	
RIGHT CHANNEL HOT	RED
RIGHT CHANNEL GROUND	GREEN
LEFT CHANNEL HOT	WHITE
LEFT CHANNEL GROUND	BLUE

The cartridge or its accompanying technical sheet will identity the cartridge connection pins. It may be necessary to slightly compress the terminals clips with your fingers to make them fit snugly on the prongs of some cartridges.

3-3. REPLACEMENT PARTS/TECHNICAL ASSISTANCE

3-3-1. REPLACEMENT PARTS
Turntable replacement parts may be ordered by writing to;

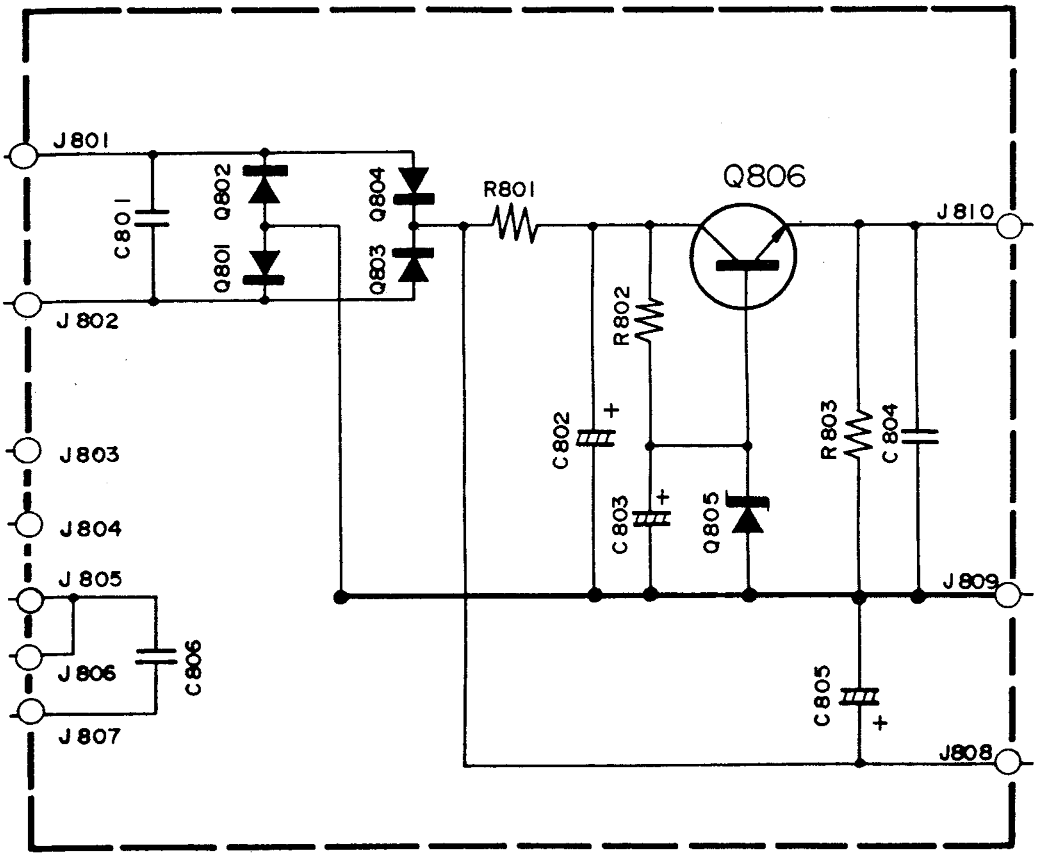
MARANTZ COMPANY, INC.
PARTS DEPARTMENT
P.O. BOX 577
CHATSWORTH, CALIFORNIA 91311 USA

3-3-2. TECHNICAL ASSISTANCE
Inquires regarding the operation and servicing of Marantz equipment should be directed to;

MARANTZ COMPANY, INC.
TECHNICAL SERVICES DEPARTMENT
P.O. BOX 577
CHATSWORTH, CALIFORNIA 91311 USA

4. DIAGRAMS

4-1. POWER SUPPLY BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P800


J801
J802
J803
J804
J805
J806
J807
C801
Q802
Q801
Q804
Q803
R801
Q806
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R802
C802
C803
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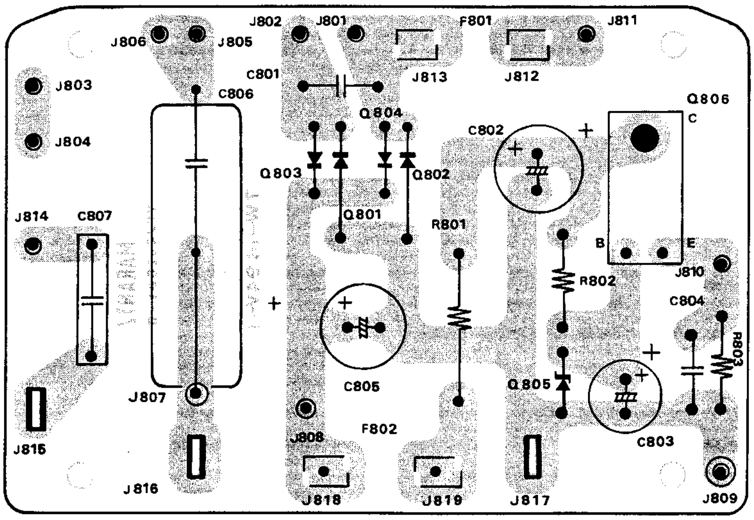
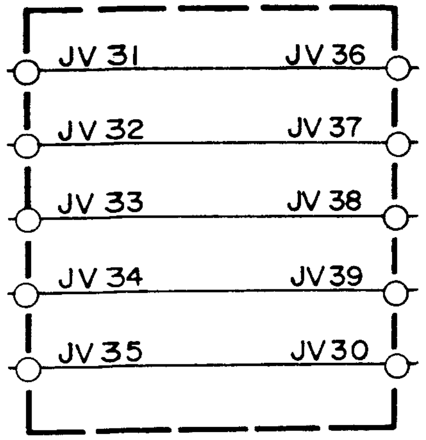
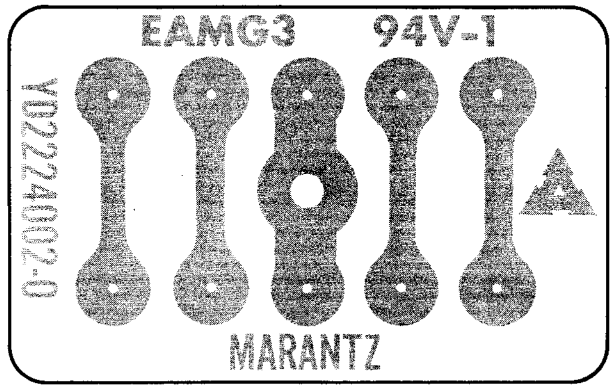
R803
C804
J809
C806
C805
J808

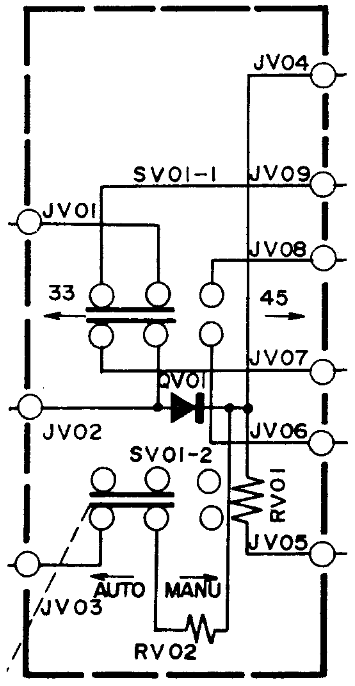

J802
J801
F801
J811
J806
J805
J803
C801
J813
J812
C806
Q806
C
Q804
J804
C802
Q803
Q802
Q801
J814
C807
R801
B
E
J810
R802
C804
R803
C805
Q805
J807
J815
F802
J808
C803
J816
J818
J819
J817
J809

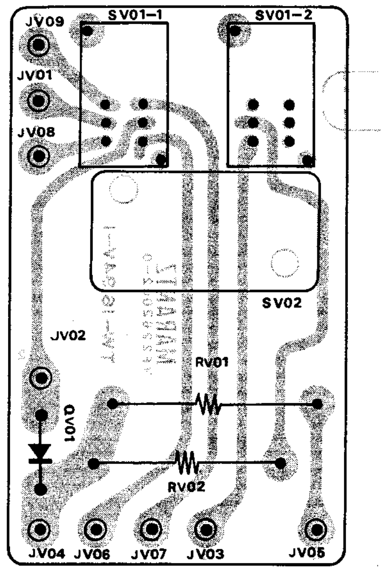
4-2. CONNECTOR BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PV03


JV 31
JV 36
JV 32
JV 37
JV 33
JV 38
JV 34
JV39
JV 35
JV30

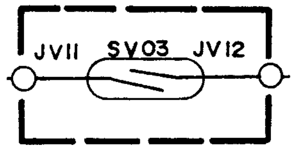

EAMG3
94V-1
V0222A002-0
MARANTZ

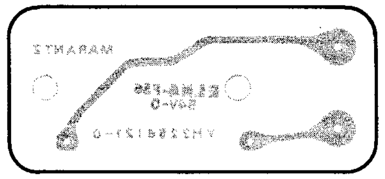
4.3 AUTO/MANUAL BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS-PV04


JV04
SV01-1
JV09
JV01
JV08
33
45
JV07
QV01
JV02
JV06
SV01-2
RV01
JV05
AUTO
MANU
JV03
RV02

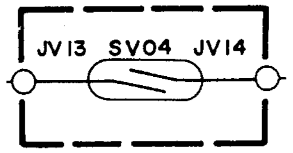

JV09
SV01-1
SV01-2
JV01
JV08
SV02
JV02
RV01
QV01
RV02
JV04
JV06
JV07
JV03
JV05

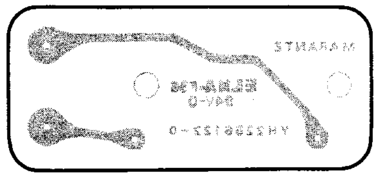
4.4 LEAD SWITCH BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS-PV01


JV11
SV03
JV12

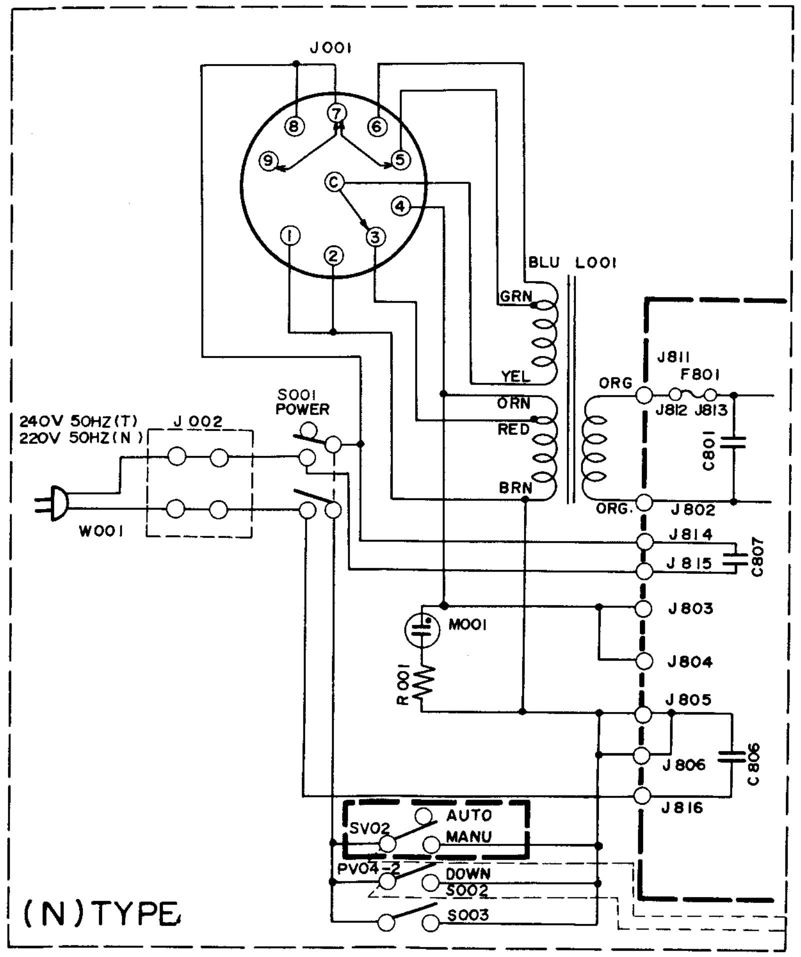


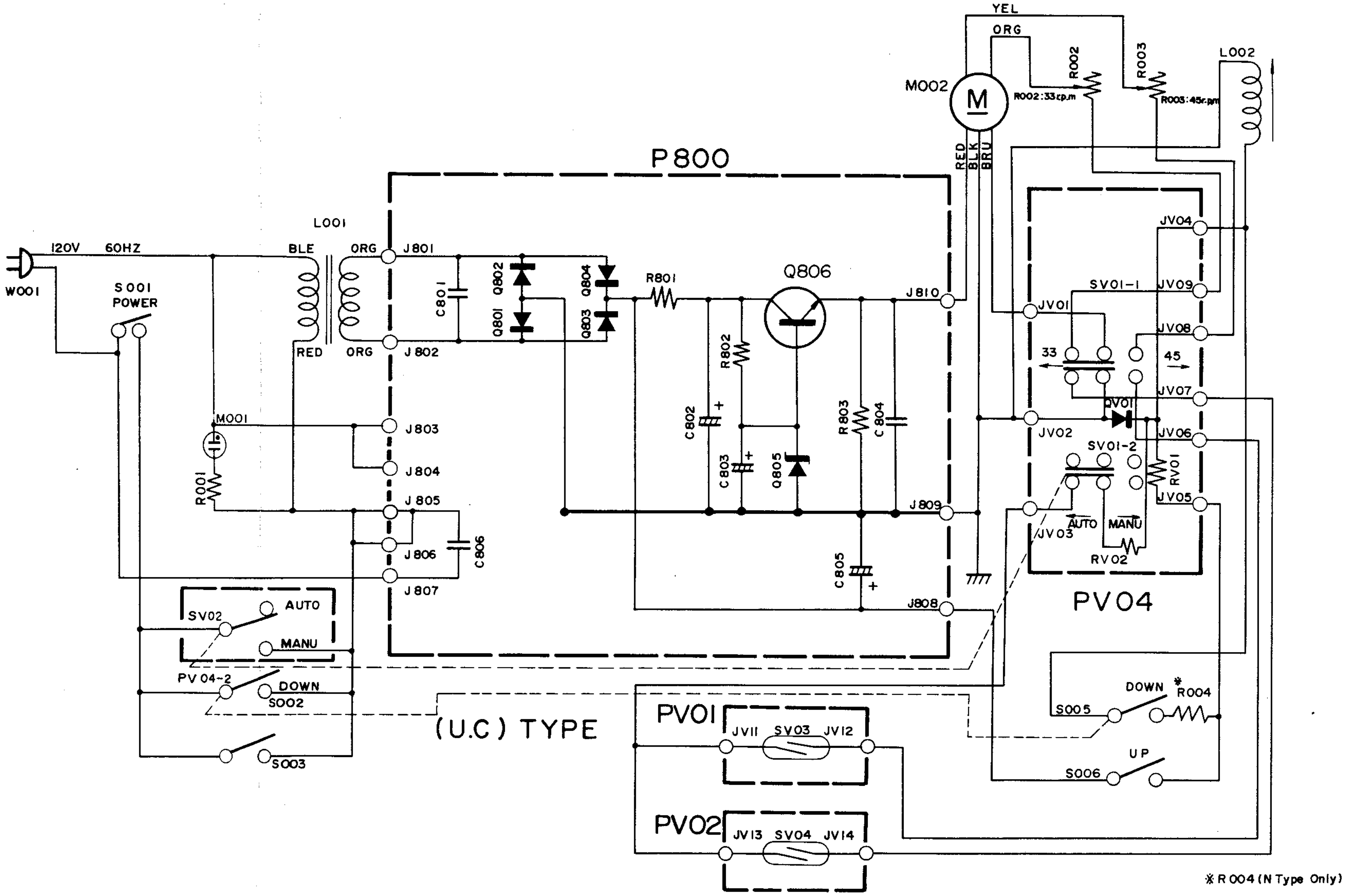
4.5 LEAD SWITCH BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS-PV02


JV13
SV04
JV14

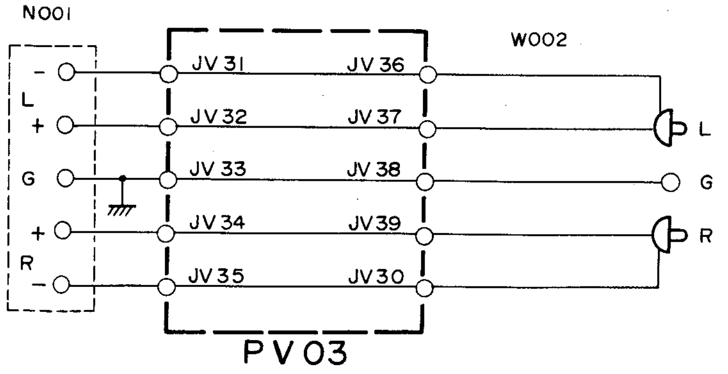


4.6 SCHEMATIC DIAGRAM


J001
BLU L001
GRN
YEL
ORN
RED
BRN
ORG
J811
F801
J812 J813
C801
J802
ORG.
J814
J815
C807
J803
J804
J805
J806
C806
J816
M001
R001
240V 50HZ(T)
220V 50HZ(N)
J 002
S001 POWER
W001
SV02
AUTO
MANU
PV04-2
DOWN
S002
S003
(N)TYPE

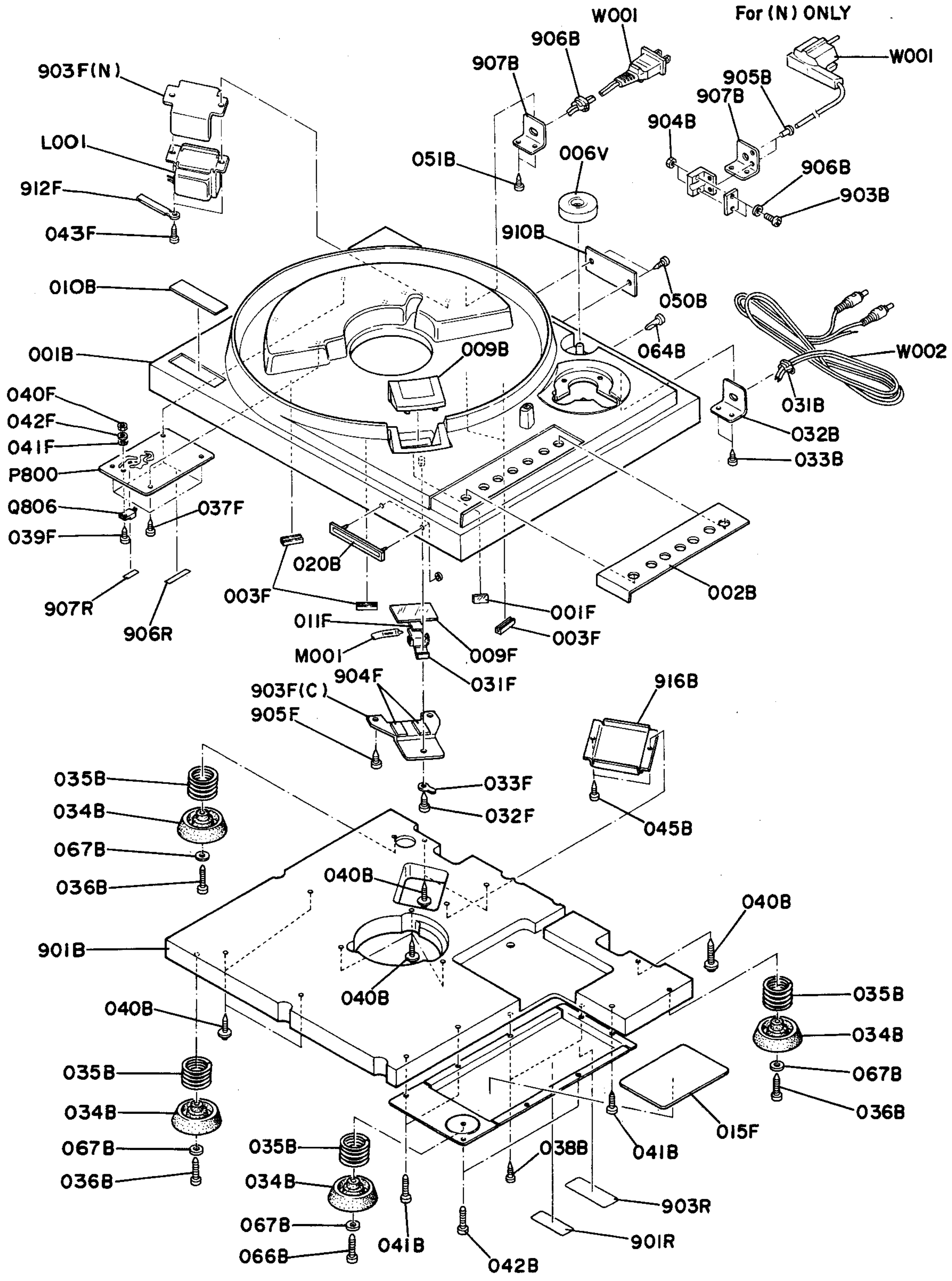

W001
120V 60HZ
S001 POWER
L001
BLE
RED
ORG
ORG
P800
J801
J802
J803
J804
J805
J806
J807
J808
J809
J810
C801
Q801
Q802
Q803
Q804
R801
Q806
R802
C802
C803
Q805
R803
C804
C805
C806
M001
R001
SV02
AUTO
MANU
PV 04-2
DOWN
S002
S003
(U.C) TYPE
M002
M
RED
BLK
BRU
YEL
ORG
R002
R003
R002:33rpm
R003:45rpm
L002
JV04
JV09
JV01
SV01-1
JV08
33
45
JV07
JV02
DV01
SV01-2
JV06
RV01
JV05
JV03
AUTO
MANU
RV02
PV04
S005
DOWN
R004
UP
S006
PV01
JV11
SV03
JV12
PV02
JV13
SV04
JV14

※R004 (N Type Only)


N001
W002
-
L
+
G
+
R
-
JV 31
JV 32
JV 33
JV 34
JV 35
JV 36
JV 37
JV 38
JV 39
JV 30
L
G
R
PV03

5. EXPLODED VIEWS AND PARTS LIST

5.1 [C01-99] CASE AND GENERAL PARTS

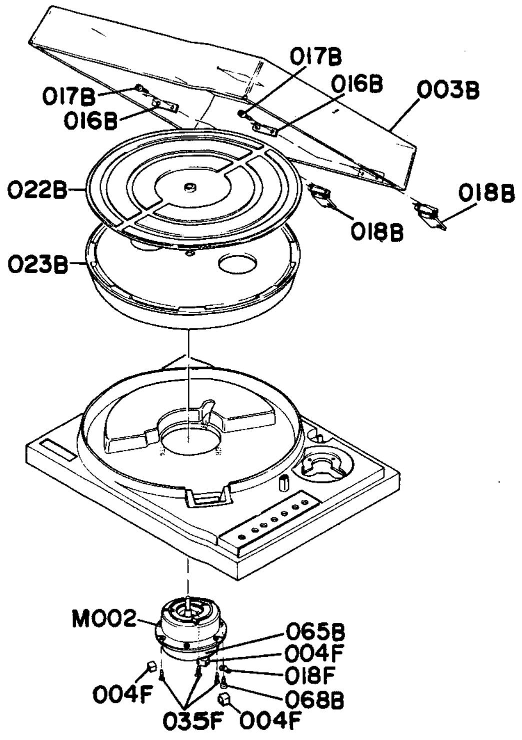

W001
906B
For (N) ONLY
907B
W001
903F(N)
905B
907B
904B
L001
051B
006V
906B
903B
912F
043F
910B
050B
010B
064B
W002
001B
009B
040F
031B
042F
032B
041F
033B
P800
Q806
037F
039F
020B
002B
907R
003F
001F
906R
011F
003F
M001
009F
904F
031F
916B
903F(C)
905F
035B
033F
034B
032F
045B
067B
036B
040B
040B
901B
040B
035B
040B
034B
067B
036B
035B
015F
034B
038B
041B
067B
036B
035B
034B
903R
067B
901R
066B
041B
042B

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

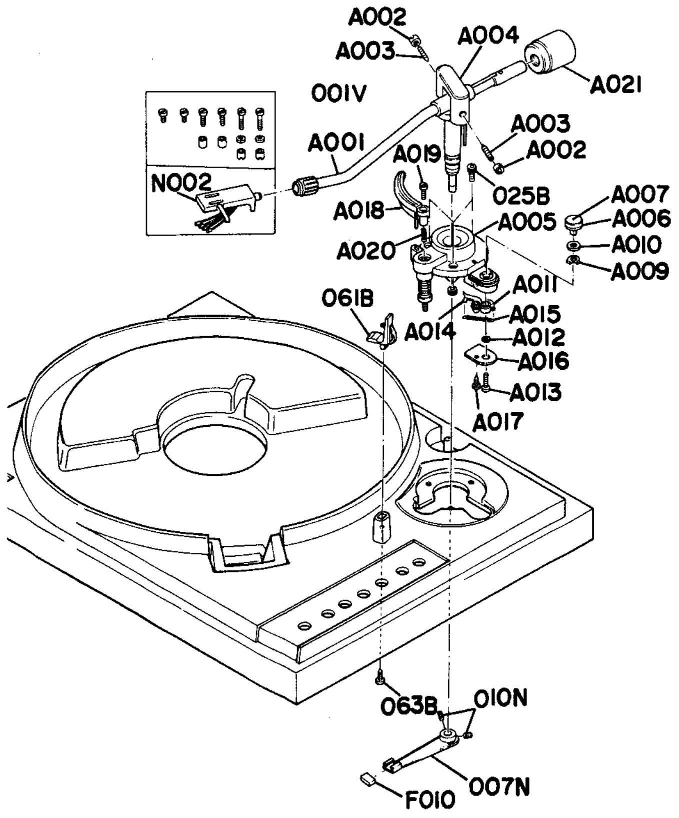
REF. DESIG.	Q'TY U	Q'TY C	Q'TY N	PART NO.	DESCRIPTION
A	1	1	1	2262064400	Case Assembly
001B	1	1	1	2262064013	Case
002B	1	1	1	2262063013	Escutcheon
009B	1	1	1	2224158010	Window
010B	1	1	1	2262203010	Name Plate
020B	1	1	1	2988251014	Badge
009F	1	1	1	2224274010	Reflector
011F	1	1	1	2224056020	Buffer
031F	1	1	1	2224104010	Retainer
032F	1	1	1	51280308B0	P.H. Tapped Screw P3 x 8
C			1	2262160400	Bracket Assembly
905B			2	55060305S0	T.R. Rivet
907B			1	2262160050	Bracket
908B			1	2821259010	Bushing
031B	1	1	1	1455259070	Bushing
032B	1	1	1	2224160042	Bracket
033B	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
034B	4	4	4	2224057010	Leg
035B	4	4	4	2224115030	Spring
036B	3	3	3	51523120A0	R.H. Wood Screw
038B	2	2	2	51523113A0	R.H. Wood Screw
040B	9	9	9	51270019B0	P.H. Tapped Screw, F
041B	2	2	2	51380330P0	P.H. Tapped Screw P3 x 30
042B	3	3	3	51300308B0	P.H. Tapped Screw P3 x 8
045B	2	2	2	51523113A0	R.H. Wood Screw
047B	1	1	1	2262257013	Lid
050B	2	2	2	51770308B0	OS Screw
051B	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
064B	1	1	1	2262259010	Bushing
066B	1	1	1	51380314P0	P.H. Tapped Screw P3 x 14
067B	4	4	4	54110149A0	Flat Washer, L
901B	1	1		2262004013	Table
901B			1	2262004023	Table
903B			2	51060312A9	P.H.M. Screw P3 x 12
904B			2	53110303A9	Hexagon Nut
906B	1	1		1455259030	Bushing
906B			2	54050300R0	T.L. Washer OR
907B	1	1		2224160032	Bracket
910B	1			2262265010	Indicator
910B		1		2262265020	Indicator
910B			1	2262265030	Indicator
916B	1	1		2224053130	Cover
916B			1	2262053010	Cover
003F	4	4	4	2224259010	Bushing

REF. DESIG.	Q'TY U	Q'TY C	Q'TY N	PART NO.	DESCRIPTION
001F	1	1	1	2224158020	Window
015F	1	1	1	2262120020	Insulator
033F	1	1	1	62030039W0	Lug
037F	4	4	4	51280308B0	B.H. Tapped Screw B3 x 8
039F	1	1	1	51100308B9	B.H.M. Screw B3 x 8
040F	1	1	1	53110303E9	Hexagon Nut
041F	1	1	1	54050300R0	T.L. Washer OR
042F	1	1	1	54020301B0	Flat Washer P
043F	2	2	2	51100308A9	B.H.M. Screw B3 x 8
903F		1		2224005040	Clamper
903F			1	2224109012	Shield
904F		2		2224056013	Buffer
905F		2		51300308B0	P.H. Tapped Screw P3 x 8
912F			2	2871005010	Clamper
901R			1	3889861010	Label
903R			1	2882861020	Label
903R		1		2911861180	Label
903R	1			3889861010	Label
906R			1	9512601080	Label
907R			1	9512601170	Label
006V	1	1	1	2272362020	Adaptor
L001	1	1		TS14808180	Power Transformer
L001			1	TS14808190	Power Transformer
M001	1	1	1	IN21200040	Lamp Neon AC 120V
W001			1	YC01800160	A.C. Power Cord
W001	1	1		YC02000140	A.C. Power Cord
W002	1	1	1	YB01000060	Connective Cord
P800	1	1	1	YF22620010	P.W. Board, Power Supply
Q806	1	1	1	HT403311F0	Transistor 2SD331F

5.2 [P01-99] TURN TABLE AND MOTOR


017B
017B
016B
016B
003B
022B
018B
018B
023B
M002
065B
004F
018F
068B
004F
035F
004F

5.3 [P02-99] TONE ARM

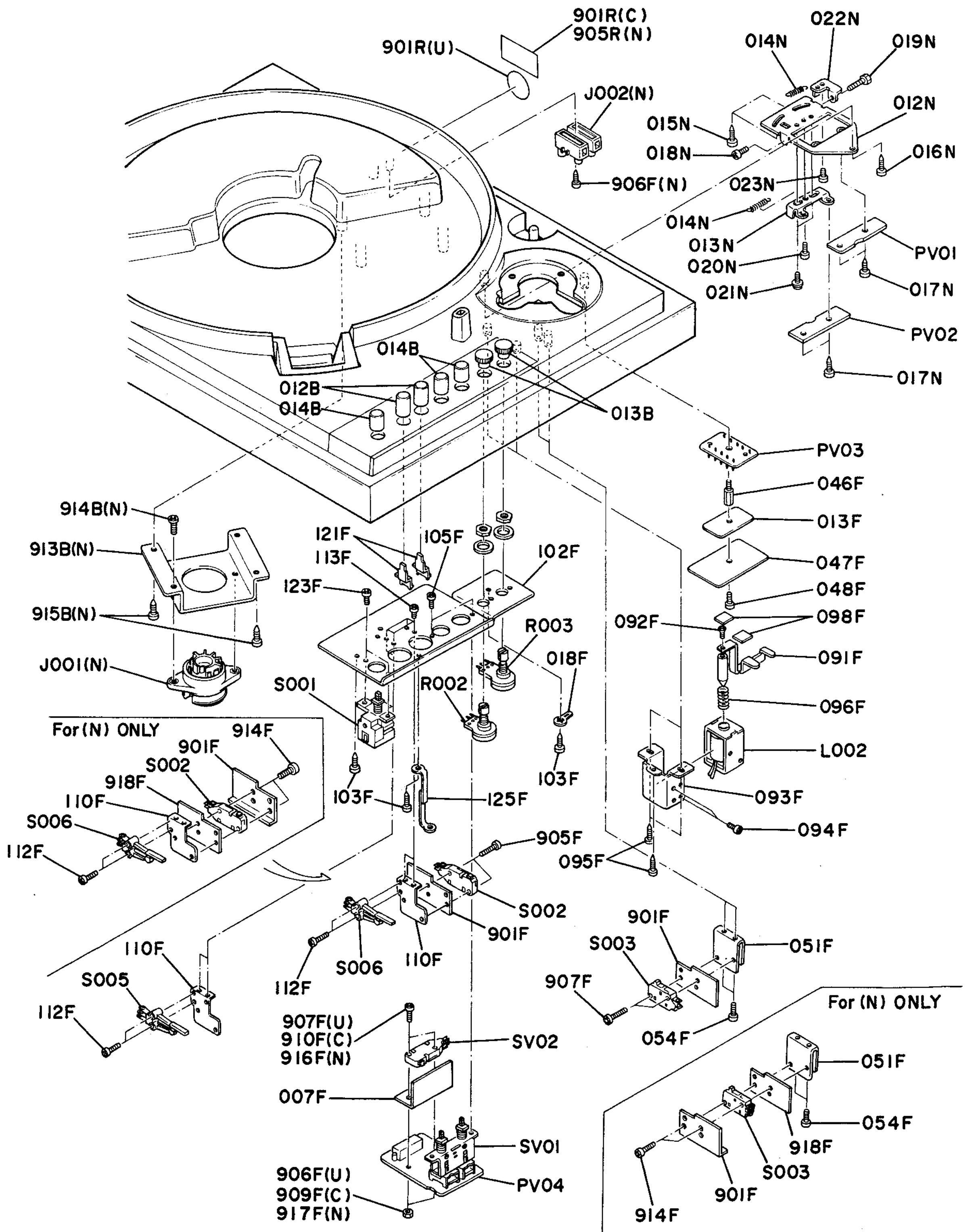

A002
A003
A004
A021
001V
A001
A003
A002
N002
A019
025B
A007
A006
A018
A005
A010
A009
A020
A011
061B
A015
A014
A012
A016
A013
A017
063B
010N
F010
007N

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
B	1	1	1	2224053400	Dust Cover Assembly
003B	1	1	1	2224053513	Cover, K
016B	2	2	2	2224160260	Bracket
017B	4	4	4	51100410S9	B.H.M. Screw B4 x 10
018B	2	2	2	2224153510	Hinge, K
022B	1	1	1	2224107020	Sheet
023B	1	1	1	2224165010	Turntable
065B	1	1	1	2224257022	Lid
068B	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
004F	3	3	3	2891056010	Buffer
018F	1	1	1	62030049W0	Lug
035F	3	3	3	51340325P0	F.H. Tapped Screw F3 x 25
M002	1	1	1	PM23300090	Phonomotor Unit DC 18V 80mA

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
A001	1	1	1	2262002210	Pipe Arm Assembly
A002	2	2	2	2224104210	Nut
A003	2	2	2	2224104220	Pivot M3 x 16
A004	1	1	1	2262104210	Pivot Ring Assembly
A005	1	1	1	2262160210	Base Bracket Assembly
A006	1	1	1	2224154210	Knob, IFC
A007	1	1	1	2256265210	Plate, IFC
A009	1	1	1	2256118220	Washer
A010	1	1	1	2256118210	Washer
A011	1	1	1	2256104210	Cam, IFC
A012	1	1	1	54020201E0	Washer
A013	1	1	1	51060214E9	Screw 2 x 14
A014	1	1	1	2224354210	Lever, IFC
A015	1	1	1	2224115210	Spring, IFC
A016	1	1	1	2262053210	Cover
A017	1	1	1	51380205P0	P.H. Tapped Screw P2 x 5
A018	1	1	1	2262002220	Arm Assembly
A019	1	1	1	51072612S9	Screw 2.6 x 12
A020	1	1	1	2262115210	Spring
A021	1	1	1	2224008210	Weight Assembly
N002	1	1	1	YS02040040	Head Sheel
025B	3	3	3	52730412S9	H.S. Head Bolt H3 x 12
061B	1	1	1	2224104240	Retainer
063B	1	1	1	51380208P0	P.H. Tapped Screw P2 x 8
007N	1	1	1	2256002530	Arm
010N	2	2	2	51690303Q0	Socket Screw, HP 3 x 3
F010	1	1	1	FD20100010	Ferrite Magnet

5.4 [P03-99] PRTS ASSEMBLED ON THE CHASSIS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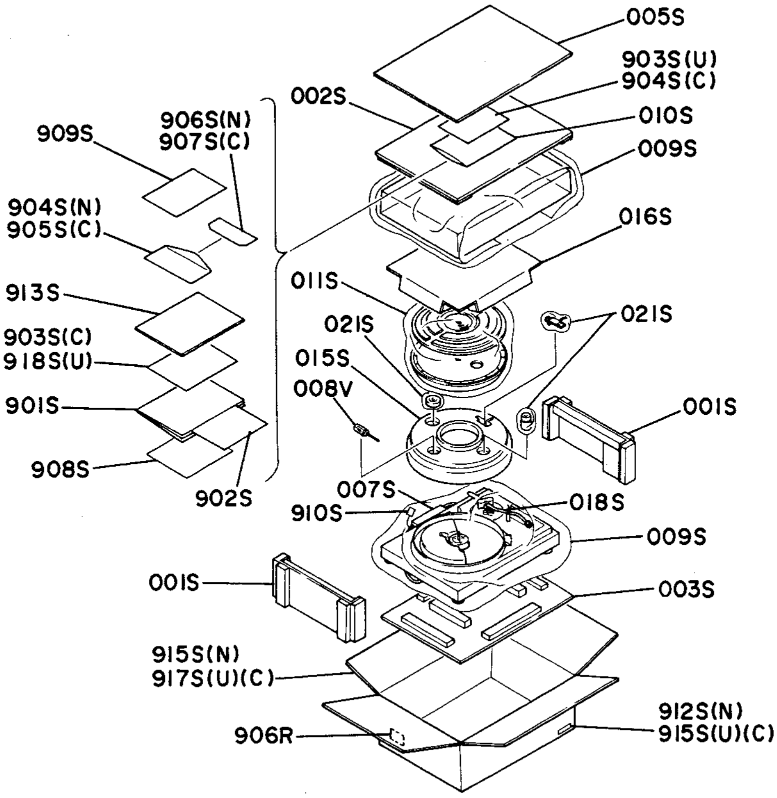
905R(N)
901R(U)
014N
022N
019N
J002(N)
012N
015N
018N
016N
906F(N)
023N
014N
013N
020N
PV01
021N
017N
PV02
017N
014B
012B
014B
013B
PV03
046F
914B(N)
013F
913B(N)
121F
105F
113F
102F
047F
048F
123F
915B(N)
R003
092F
098F
018F
J001(N)
S001
R002
091F
096F
For (N) ONLY
914F
901F
S002
918F
L002
110F
103F
125F
103F
S006
093F
094F
112F
905F
095F
S002
901F
901F
S003
051F
110F
S005
S006
110F
112F
907F
For (N) ONLY
112F
907F(U)
910F(C)
916F(N)
SV02
054F
051F
007F
054F
SV01
918F
906F(U)
909F(C)
917F(N)
PV04
S003
901F
914F

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
012B	2	2	2	2963154020	Knob
013B	2	2	2	2224154030	Knob
014B	3	3	3	2963154030	Knob
913B			1	2224160050	Bracket
914B			2	51060306A9	P.H.M. Screw P3 x 6
915B			4	51280308B0	B.H. Tapped Screw B3 x 8
007F	1	1	1	2262120010	Insulator
013F	1	1	1	2224120020	Insulator
018F	1	1	1	62030049W0	Lug
046F	1	1	1	2262101010	Support
047F	1	1	1	2256109010	Shield
048F	1	1	1	51100305A9	B.H.M. Screw B3 x 5
051F	1	1	1	2262160022	Bracket
054F	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
091F	1	1	1	2262354020	Lever
092F	1	1	1	51040306A9	F.H.M. Screw F3 x 6
093F	1	1	1	2262160030	Bracket
094F	2	2	2	51100304A9	B.H.M. Screw B3 x 4
095F	3	3	3	51280308B0	B.H. Tapped Screw B3 x 8
096F	1	1	1	2262115020	Spring
098F	2	2	2	2262056030	Buffer
102F	1	1	1	2262160010	Bracket
103F	3	3	3	51280308B0	B.H. Tapped Screw B3 x 8
105F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
110F	2	2	2	2262160042	Bracket
112F	4	4	4	51100208A0	B.H.M. Screw B2 x 8
113F	4	4	4	51100306A9	B.H.M. Screw B3 x 6
121F	2	2	2	2262354012	Lever
123F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
125F	1	1	1	2262005020	Clamper
901F			2	2255120032	Insulator
901F	2	2		2256120050	Insulator
905F	2	2		51100316B9	B.H.M. Screw B3 x 16
906F	1			53110303E9	Hexagon Nut
907F	2			51100316B9	B.H.M. Screw B3 x 16
909F		2		53110303E9	Hexagon Nut
910F		2		51100316B9	B.H.M. Screw B3 x 16
911F	1	1		2262115032	Spring
911F			1	2262115040	Spring
914F			4	50060316B9	Screw
916F			2	50060316B9	Screw
917F			2	53110303E9	Hexagon Nut
918F			2	2256120050	Insulator

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
012N	1	1	1	2256160143	Bracket
013N	1	1	1	2256160192	Bracket
014N	2	2	2	2256115050	Spring
015N	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
016N	1	1	1	51100306A9	B.H.M. Screw B3 x 6
017N	4	4	4	51100306E9	B.H.M. Screw B3 x 6
018N	1	1	1	51100308A9	B.H.M. Screw B3 x 8
019N	1	1	1	51100314A9	B.H.M. Screw B3 x 14
020N	1	1	1	51100305A9	B.H.M. Screw B3 x 5
021N	2	2	2	51202603A0	P.H.W.H. Screw P2.6 x 3
022N	1	1	1	2262160060	Bracket
023N	1	1	1	51280306B0	B.H. Tapped Screw B3 x 6
901R		1		2457861040	Label
901R	1			9511101060	Label
905R			1	2939861022	Label
J001			1	BY03110010	Plug, Voltage Selector
J002			1	YL09020040	Terminal 2P
L002	1	1	1	ME10430050	Solenoid Coil
R002	1	1	1	RK05020130	Variable Resistor 5KΩ
R003	1	1	1	RK05020130	Variable Resistor 5KΩ
S001	1	1		SP01010180	Push Switch, Power
S001			1	SP02010250	Push Switch, Power
S002			1	SM01020090	Mini Switch
S002	1			SM01020150	Mini Switch
S002		1		SM01020330	Mini Switch
S003			1	SM01020090	Mini Switch
S003	1			SM01020150	Mini Switch
S003		1		SM01020330	Mini Switch
S005	1	1	1	SM01020140	Mini Switch UP/Down
S006	1	1	1	SM01020140	Mini Switch UP/Down
PV01	1	1	1	YF22620020	P.W. Board, Adjustor
SV01	1	1	1	SP02020330	Push Switch
SV02			1	SM01020090	Mini Switch
SV02	1			SM01020150	Mini Switch
SV02		1		SM01020330	Mini Switch

5.5 [H01-99] PACKING MATERIALS


005S
903S(U)
904S(C)
010S
009S
016S
021S
001S
018S
009S
003S
912S(N)
915S(U)(C)
002S
906S(N)
907S(C)
909S
904S(N)
905S(C)
913S
903S(C)
918S(U)
901S
908S
902S
011S
021S
015S
008V
007S
910S
001S
915S(N)
917S(U)(C)
906R

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY U	Q'TY C	Q'TY N	PART NO.	DESCRIPTION
001S	2	2	2	2262803010	Partitioner
002S	1	1	1	2224807012	Reinforcing
003S	1	1	1	2262807022	Reinforcing
005S	1	1	1	2224807032	Reinforcing
007S	2	2	2	2864804010	Sleeve
009S	1	1	1	9014543380	Polyethy Bag
010S	1	1	1	9013025010	Polyethy Bag
011S	1	1	1	9013540010	Polyethy Bag
014S	1	1	1	2224803050	Partitioner
015S	1	1	1	2224803060	Partitioner
016S	1	1	1	2224803072	Partitioner
018S	1	1	1	2256005050	Clamper
021S	3	3	3	9010510010	Polyethy Bag
901S	1			2262851012	Instructions
901S		1	1	2262851312	Instructions
902S	1			2262851022	Instructions
902S			1	2262851030	Instructions
902S		1		2262851052	Instructions
903S	1			2262851060	Instructions
903S			1	2262851070	Instructions

REF. DESIG.	Q'TY U	Q'TY C	Q'TY N	PART NO.	DESCRIPTION
903S		1		2886851100	Instructions
904S		1		2262851070	Instructions
904S			1	2818813010	Envelope
905S		1		2918813010	Envelope
906S			1	9630000180	Guarantee Card
907S		1		9630000180	Guarantee Card
908S		1		9650000050	S. Station Cord
909S		1		2818854040	Guarantee Card
910S			1	9560000043	Hang Tag
912S			3	9526019030	Serial No Card
913S	1			2818854024	Guarantee Card
915S			1	2262801010	Packing Case
915S	3			9526019010	Serial No Card
915S		3		9526019020	Serial No Card
917S	1			2262801010	Packing Case
917S		1		2262801150	Packing Case
918S	1			2225813010	Envelope
906R		2		9510901020	Label
008V	1	1	1	2939164010	Adjuster

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
					P800-POWER SUPPLY CIRCUIT BOARD
P800	1	1	1	YF22620010	P.W. Board, Power Supply
	1			ZZ22620010	P.W. Board Assembly
		1		ZZ22629010	P.W. Board Assembly
			1	ZZ22628010	P.W. Board Assembly
					P800-CAPACITORS
C801	1	1	1	DK18103510	Ceramic 0.01μF ±20% 50V
C802	1	1	1	EA10705090	Elect 100μF 50V
C803	1	1	1	EA10702590	Elect 100μF 25V
C804	1	1	1	DK18103510	Ceramic 0.01μF ±20% 500V
C805	1	1	1	EA10705090	Elect 100μF 50V
C806			1	DF17223800	Film 0.022μF ±20% 1000V
C806		1		DF17473590	Film 0.047μF ±20% 125V
C806	1			DF17473600	Film 0.047μF ±20% 125V
C807			1	DF17223800	Film 0.022μF ±20% 1000V
					P800-RESISTORS
R801	1	1	1	GJ05150020	15Ω ±5% 2W
R802	1	1	1	RT05182140	1.8KΩ ±5% ¼W
R803	1	1	1	RT05104140	100KΩ ±5% ¼W
					P800-SEMICONDUCTORS
Q801	1	1	1	HD20013100	Diode 10D1
Q802	1	1	1	HD20013100	Diode 10D1
Q803	1	1	1	HD20013100	Diode 10D1
Q804	1	1	1	HD20013100	Diode 10D1
Q805	1	1	1	HD30030090	Zener WZ177
Q806	1	1	1	HT403311F0	Transistor 2SD331F
					P800-MISCELLANEOUS
F801			1	FS10050800	Fuse AC 250V 500mAT
F802			1	FS10020800	Fuse AC 250V 500mAT
J812			1	YJ08000200	Jack, Fuse
J813			1	YJ08000200	Jack, Fuse
J815			1	YL01010040	Terminal
J816			1	YL01010040	Terminal
J818			1	YJ08000200	Jack, Fuse
J819			1	YJ08000200	Jack, Fuse

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
PV01	1	1	1	YH22561210	P.W. Board, Adjuster
	1	1	1	ZZ22561210	P.W. Board Assembly
SV03	1	1	1	SC01010280	Lead Switch
PV02	1	1	1	YH22561220	P.W. Board, Adjuster
	1	1	1	ZZ22561220	P.W. Board Assembly
SV04	1	1	1	SC01010280	Lead Switch
PV03	1	1	1	YD22240020	P.W. Board, Connective
	1	1	1	ZZ22240020	P.W. Board Assembly
PV04	1	1	1	YF22620020	P.W. Board, Auto/Manual
	1	1	1	ZZ22620020	P.W. Board Assembly
RV01	1	1	1	GS10151050	Resistor 150Ω ±10% 5W
RV02	1	1	1	GJ05047010	Resistor 4.7Ω ±5% 1W
QV01	1	1	1	HD20003210	Diode 1S2471
SV01	1	1	1	SP02020330	Push Switch 33/45, Auto/Manual

(W01-99)	**Assembly and Wiring**
(T01-99)	**Adjustment**
(X01-00)	**Correction**